

<b>PIKE INDUSTRIES, INC.</b>	)	<b>DEPARTMENTAL</b>
<b>ANDROSCOGGIN COUNTY</b>	)	<b>FINDINGS OF FACT AND ORDER</b>
<b>LEWISTON, MAINE</b>	)	<b>AIR EMISSION LICENSE</b>
<b>A-183-71-K-R</b>	)	

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

# **I. REGISTRATION**

## **A. Introduction**

Pike Industries, Inc. P(900) (Pike) located in Lewiston, Maine has applied to renew their Air Emission License, permitting the operation of their hot mix asphalt plant and their crushed stone and gravel facility.

## **B. Emission Equipment**

### **Asphalt Plant (P900):**

<u>Equipment</u>	<u>Process Rate</u> <u>(tons/hour)</u>	<u>Design Capacity</u> <u>Firing Rate</u>	<u>Control</u> <u>Devices</u>	<u>Stack</u> <u>ID</u>	<u>Date of</u> <u>Manufacture</u>
Rotary Kiln	240	68.8 MMBtu/hr, 66,345 cf/hr nat gas 491 gal/hr, #2 fuel and/or spec. waste oil	baghouse	EP-1	1988

### **Rock Crushers:**

<u>Designation</u>	<u>Powered</u>	<u>Process Rate</u> <u>(tons/hour)</u>	<u>Control Device</u>
Primary	diesel	250	Spray Nozzles
Secondary	diesel	250	Spray Nozzles
Tertiary	diesel	150	Spray Nozzles
Tertiary	diesel	150	Spray Nozzles

### **Diesel Unit:**

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Power Output</u>
Gen. Set 615G-1	4.94 MMBtu/hr	35.3 gal/hr	676 kW

Pike also operates a hot oil heater rated at 2.2 MMBtu/hr based on a maximum firing rate of 16 gallons per hour. The heater can fire #2 fuel oil, waste oil, and/or natural gas.

**C. Application Classification**

The application for Pike does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emissions units only.

**II. BEST PRACTICAL TREATMENT**

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations. BPT for new units consists of meeting Best Available Control Technology (BACT).

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

**A. Asphalt Plant**

To meet the requirements of Best Practical Treatment (BPT) for the control of particulate matter (PM) emissions from the asphalt plant, Pike Industries, Inc. shall prevent visible emissions greater than 20% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

Therefore, emissions from the asphalt operation and dryer shall vent to a baghouse to meet the requirements of BPT. The rotary kiln can fire #2 fuel oil, waste oil or natural gas. The sulfur content of the #2 fuel oil and specification waste oil shall not exceed 0.5% by weight. Fuel use of #2 fuel oil and/or waste oil shall not exceed 500,000 gallons per year based on a 12 month rolling total. Natural gas fuel use is limited to 100,000,000 ft<sup>3</sup>/year based on a 12 month rolling total. Regulated pollutants emitted from the rotary kiln are particulate matter (PM), particulate matter with a diameter smaller than ten microns (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC).

Based on the above hot mix asphalt plant process rate, the PM emission rate from the asphalt baghouse shall be limited to 0.03 grs/dscf. The performance of the baghouse shall be constantly monitored by either one of the following at all times the kiln is operating:

1. PM detector - when the detector signals excessive PM concentrations in the exhaust stream, Pike Industries, Inc. shall take corrective action within 24 hours, or immediately if opacity exceeds 20% or;
2. Personnel with an EPA Method 9 visible emissions training within the past 6 months - when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

Fugitive emissions from the asphalt plant shall not exceed 10% opacity on a 6-minute block average.

Petroleum contaminated soil processing cannot exceed 10,000 cubic yards per calendar year without prior approval from the Department. The facility shall only process soils contaminated with gasoline or #2 fuel oil without prior approval from the Department.

**B. Rock Crushers**

The primary, secondary, and tertiary rock crushers were manufactured after 1983 and therefore subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Available Control Technology (BACT) for control of particulate matter (PM) emissions from the rock crushers, Pike Industries, Inc. shall control visible emissions to no greater than 10% opacity on a six-minute block average. The primary, secondary, and tertiary rock crushers will use spray nozzles for particulate control.

**C. Diesel Unit**

The diesel unit is used to power the primary, secondary, and tertiary rock crushers. Total fuel use in the diesel unit shall not exceed 81,190 gal/year of diesel fuel, based on a 12 month rolling total, with a maximum sulfur content of 0.05% by weight. Both the fuel used in the asphalt batch plant and the diesel are restricted to 0.5% sulfur content by weight. The combination of limited fuel use and low % sulfur restriction is considered BPT. Visible emissions shall not exceed an

opacity of 30% on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

D. Hot oil heater

The hot oil heater is used to keep the oil from congealing. The heater has a maximum design capacity rated at 2.2 MMBtu/hr based on the maximum fuel input of 16 gallons per hour. The heater can fire #2 fuel oil, waste oil, and/or natural gas. The fuel shall be limited to 0.5% sulfur content by weight. To estimate emissions, the maximum amount of fuel that can be fired in the heater shall be limited to 140,000 gallons per year. Visible emissions from the heater shall not exceed 20% opacity on a 6-minute block average.

E. Stock Piles and Roadways

BPT for all potential sources of fugitive PM emissions, including material stockpiles and unpaved roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity, based on a 3 minute block average.

F. Facility Emissions and Fuel Use Caps

Based on the process rate of 240 tons per hour of Hot Mix Asphalt (HMA), and total fuel use of 500,000 gallons/year of #2 fuel/specification waste oil with a sulfur content not to exceed 0.5% by weight for the HMA plant, the maximum licensed allowed limit of 81,190 gallons per year for the diesel unit, and the maximum of 140,000 gallons per year combusted in the oil heater unit, the total allowable annual emissions for the facility are as follows:

**Total Allowable Annual Ton/Year Emissions for the Facility**  
(used to calculate the annual license fee)

<u>Equipment</u>	<u>PM</u>	<u>PM<sub>10</sub></u>	<u>SO<sub>2</sub></u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>VOC</u>
Asphalt Batch Plant (P900)	10.3	10.3	5.8	20.7	8.4	5.6
Diesel Engine	0.7	0.7	1.6	24.5	5.3	2.0
Hot oil heater	1.2	1.2	5.0	2.0	0.4	0.1
<b>TOTALS</b>	<b>12.2</b>	<b>12.2</b>	<b>12.4</b>	<b>47.2</b>	<b>14.1</b>	<b>7.7</b>

### III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based

**PIKE INDUSTRIES, INC.  
ANDROSCOGGIN COUNTY  
LEWISTON, MAINE  
A-183-71-K-R**

) **DEPARTMENTAL**  
) **FINDINGS OF FACT AND ORDER**  
) **AIR EMISSION LICENSE**  
**5**

on the information available in the file, Pike Industries, Inc. is below the emissions level required for modeling and monitoring.

### **ORDER**

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,  
will not violate applicable emission standards,  
will not violate applicable ambient air quality standards in  
conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-183-71-K-R and in the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.
  - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

- (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

(16) Asphalt Plant

- a. Emissions from the hot mix asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks.
- b. The performance of the baghouse shall be constantly monitored by either one of the following at all times the dryer is operating:
  1. PM detector - when the detector signals excessive PM concentrations in the exhaust stream, Pike Industries, Inc. shall take corrective action within 24 hours, or immediately if opacity exceeds 20% or;
  2. Personnel with an EPA Method 9 visible emissions certification within the past 12 months - when the opacity exceeds 20%, the asphalt batch plant is operating with insufficient control and corrective action shall be taken immediately.
- c. To document maintenance of the baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be located at the facility whenever the facility is in operation.
- d. Pike Industries, Inc. shall prevent visible emissions from the baghouse from exceeding 20% opacity on a six minute block average, except for no more than 2 six minute block averages in a 3 hour period.
- e. Fugitive PM emissions from the asphalt operation shall be controlled so as to prevent visible emissions in excess of 10% opacity on a six-minute block average.
- f. Fuel use records and receipts, documenting amount of fuel and sulfur content, for the asphalt dryer shall be maintained for at least six years and made available to the Department upon request.
- g. The asphalt dryer shall be limited to a maximum of 68.8 MMBtu/hr heat input and a production rate of 250,000 tons/year of HMA through the rotary kiln. Pike shall be limited to 100,000,000 ft<sup>3</sup>/yr of natural gas (12 month rolling total), with a sulfur content not to exceed 0.5% by weight in the asphalt kiln. However, Pike can also fire #2 fuel oil and/or specification waste oil. Since emissions from the combustion of #2 fuel oil and specification waste oil represent the highest emissions, short-term and ton per year emissions for the HMA plant will be based on operating under this scenario. Based on the total



use of 500,000 gal/year of #2 fuel oil/specification waste oil (12 month rolling total), with a sulfur content not to exceed 0.5%, emissions from the HMA plant shall not exceed:

<u>Pollutant</u>	<u>gr/dscf</u>	<u>lb/hr</u>	<u>TPY</u>
PM	0.03	20.4	10.3
PM <sub>10</sub>	0.03	20.4	10.3
SO <sub>2</sub>	--	11.5	5.8
NO <sub>x</sub>	--	40.8	20.7
CO	--	16.6	8.4
VOC	--	11.0	5.6

- h. The licensee shall not process more than 10,000 cubic yards of petroleum contaminated soils per year without prior approval from the Department.
  - i. The licensee shall only process soils contaminated with gasoline and #2 fuel oil without prior approval from the Department.
  - j. The licensee shall not process contaminated soils which are classified as hazardous waste or which have unknown contaminants.
  - k. When processing petroleum contaminated soils, the licensee shall maintain records which specify the quantity and type of contaminant in the soil as well as the origin and characterization of the contaminated soil. In addition, when processing contaminated soil the licensee shall maintain records of processing temperature, asphalt feed rates, and dryer throughput on an hourly basis. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management.
- (17) Rock Crushers
- a. Pike Industries, Inc. shall operate and maintain spray nozzles for particulate control on all primary, secondary, and tertiary rock crushers. Visible emissions from the crushers shall be limited to no greater than 10% opacity based on a six-minute block average. Pike shall follow the requirements of EPA New Source Performance Standards (NSPS) Subpart OOO.
  - b. Pike Industries, Inc. shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be located at the facility whenever the facility is in operation.
  - c. Pike Industries, Inc. shall maintain a log quantifying the hours of operation and production on a daily basis for all of the primary, secondary and tertiary rock crushers. The operation log shall be located at the facility whenever the facility is in operation.

(18) Diesel Unit

- a. Pike Industries, Inc. shall obtain a delivery ticket from each fuel supplier for each shipment of fuel oil received which indicates the name, address, and telephone number of the fuel oil supplier and which verifies that the diesel fuel being delivered contains no more than 0.05% sulfur by weight. Pike Industries shall retain these records for at least six years and make them available to the Department upon request.
- b. Pike Industries, Inc. shall not exceed the total use of 81,190 gal/year of diesel fuel (12 month rolling total), with a sulfur content not to exceed 0.05% by weight. Emissions from diesel unit shall be limited to the following:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.3
PM <sub>10</sub>	0.3
SO <sub>2</sub>	2.5
NO <sub>x</sub>	11.5
CO	2.8
VOC	0.5

- c. Visible emissions shall not exceed an opacity of 30% on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.
- (19) Pike shall limit the fuel oil fired in the heater to less than 140,000 gallons per year, based on a 12-month rolling total, and less than 0.5% sulfur content by weight, documented by fuel oil receipts. Visible emissions from the heater shall not exceed 20% opacity on a 6-minute block average.
- (20) Potential sources of fugitive PM emissions including material stockpiles and unpaved roadways shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity on a 3-minute block average.
- (21) Pike Industries, Inc. shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. Written notification shall also be made to the municipality where the equipment will be relocated to, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

**PIKE INDUSTRIES, INC.  
ANDROSCOGGIN COUNTY  
LEWISTON, MAINE  
A-183-71-K-R**

) **DEPARTMENTAL**  
) **FINDINGS OF FACT AND ORDER**  
) **AIR EMISSION LICENSE**  
**11**

- (22) Pike Industries, Inc. shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.
- (23) The primary, secondary, and tertiary rock crushers are subject to 40 CFR Part 60 Subparts A, and OOO and Pike Industries, Inc. shall comply with the notification and recordkeeping requirements of 40 CFR Part 60.7.
- (24) Pike shall pay the annual air emission license fee within 30 days of August 30<sup>th</sup> of each year. Pursuant to Title 38-353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under section 341-D, subsection 3.
- (25) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS            DAY OF            2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: February 28, 2003

Date of application acceptance: March 7, 2003

Date filed with the Board of Environmental Protection \_\_\_\_\_

This order prepared by Edwin L. Cousins Bureau of Air Quality

